DEPARTMENT OF THE AIR FORCE
Headquarters Air Force Materiel Command
Wright-Patterson Air Force Base OH 45433-5001

AFMC MANUAL 50-14

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Training

AFMC COURSE DEVELOPMENT MANUAL

This manual provides policy and guidance for course development within Air Force Materiel Command (AFMC). This publication does not apply to the US Air Force Reserve or Air National Guard units and members.

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INTRODUCTION

1. Your training program needs are second only to your day-to-day mission requirements. It is more cost effective to design a training program to meet your center's specific needs than it is to just have a general training program that may only meet one or two of your needs.

2. This course development manual provides AFMC guidance on analyzing, designing, developing, implementing, and evaluating your organic training program.

3. In establishing and managing a sound and productive organic training program, you will need to refer to other Air Force directives such as AFM 50-2, AFR 50-5, AFM 50-62, AFP 50-68, AFR 5-8, AFMCP 50-5, AFMCR 50-4, and AFMCP 50-15 for guidance and policies.

4. Refer to your occupational templates for instructor, course developer and on-the-job instructor's qualification requirements.

5. Course development is a lengthy process requiring significant effort. Historically, training has taken 40 hours of development for each classroom hour. That 40 to 1 ratio is significantly understated when developing Computer Based Instruction (CBI) or other current innovative approaches. One of these approaches may take more than 200 hours of development per one hour of classroom instruction.

Chapter 1

PLANNING AND ANALYSIS

1-1. Introduction. The success of a course begins with a good plan. There are specific actions a course developer should take before beginning development. This chapter will outline the procedures for planning and analysis.

1-2. Planning. Before your initial planning, obtain a course number from your Command Course Manager (CCM) to alleviate duplication of effort. Contact HQ AFMC/DPU to determine your CCM.

a. The core of a good plan is a comprehensive needs assessment. Once you have determined that there is a need for the course, an important question to answer is: "What should I include in this course?" There are several sources available to help you answer this question. We recommend the following: Occupational Template(s); Occupational Measurement Squadron Data (i.e., Task Analysis, Occupational Survey Report); Subject Matter Expert interviews; Classification Standards; Position Descriptions. When selecting the tasks, there are several factors you should consider:

- Can most job incumbents perform the task without instruction?
- How often is the task performed on the job?
- Will job degradation occur if there is no instruction?
- Is the task critical to the job or mission performance?
- Is it economical to teach the task?
- Is there sufficient time to teach the task adequately?
- Is the task difficult to learn?
- How soon will the graduate be required to perform the task on the job?
- What percentage of the personnel are required to perform the task?
- Will geographical, procedural, or environmental conditions make it unreasonable to teach all job incumbents to perform the task? For further assistance you may refer to AFP 50-68, Volume IX, Section B or contact your CCM.

b. At the end of your needs assessment, you should have a comprehensive list of tasks. This is the Master Task List (MTL). Use your MTL to determine if your course will be knowledge based or skill based. Knowledge based training involves concepts, theories, and philosophies of a system, program, or process. Skill based training involves the introduction, development and application of job skills.

c. Another question in the planning phase is: "Am I the best source for this course?" In answering this question you should examine your time and resource constraints as well as existing courses to determine effectiveness, efficiency and expense.

1-3. Analysis. The MTL is the beginning point of your analysis. Evaluate each task to determine if the task should be included in the course. The form you use to analyze these tasks is not important, however, there are critical elements that you should include in your analysis. As a minimum, include on your Task Analysis Worksheet (TAW), a breakdown of the tasks into subtasks, the order in which the subtasks are performed, and the Knowledge, Skills, and Abilities (KSA) required to perform the task. An example of a relatively easy task is making a Peanut Butter and Jelly Sandwich.

TASK - Making a Peanut Butter and Jelly Sandwich

Subtask 1 - Get Materials
Subtask 2 - Open Jars
Subtask 3 - Spread Peanut Butter Jelly*
Subtask 4 - Assemble
Subtask 5 - Clean-up

* "Spread Peanut Butter and Jelly" is the most critical subtask. You would want to devote most of your course time teaching this subtask. Also notice the subtasks are in the order they are performed. These are the KSAs that pertain to the subtasks.

- Knowledge of where materials are located
- Ability to open jars
- Skill to use a knife to spread
- Knowledge of clean-up procedures

(For more information refer to AFP 50-68, Volume X, Chapter 4)

a. You should also include on your TAW: Condition under which the task will be performed such as tools, equipment, and materials required to perform the task; standard of per-

formance that must be achieved to produce a satisfactory outcome. For an example, refer to AFP 50-68, Volume IX, Chapter 4.

b. With the data from the previous analysis, develop your Course Training Standard (CTS). An example of a CTS with the proficiency code key may be found in AFP 50-68, Volume IX, Chapter 4.

c. Evaluate your analysis by reviewing the MTL, TAW, CTS and the course chart with the Subject Matter Experts and/or the person requesting the course.

Chapter 2

DESIGN

2-1. Introduction. The instructional design is determined in this phase. This will play a key role in the efficiency of the instructional system. A continuing effort in the design phase is the assurance of quality in the design process and products, with emphasis on improvements when possible. The design phase contains six actions:

- Develop Objectives
- Develop Measurement tools
- Review Existing Materials
- Develop Instructional Plan
- Develop Implementation Plan
- Update ISD Management Plan

2-2. Develop Objectives. Objectives must contain three parts; condition, behavior, and standard. State objectives precisely so everyone working with them gets the same meaning. Develop objectives for each task identified on the CTS.

2-3. Develop Measurement Tools. The primary purpose of measuring is to assess the student's attainment of the behavior specified in an objective. Develop a pool of questions for each knowledge level objective. Developer's documentation should reference the objective it measures. You may use a by-pass test if not prohibited by law or regulation. Treat all tests as controlled material.

2-4. Review Existing Materials. Materials exist that cover almost every aspect of instruction (such as electronics, mathematics, weather, management, etc.), several sources of existing materials are: HQ AFMC/DPU, DOD, other services, federal/state agencies, industry/commercial, colleges and universities.

2-5. Develop Instructional plan. Reference AFM 50-2 Chapter 5, Section D, Develop Instructional Plan. Be sure to review and consider the method(s) on the occupational template.

2-6. Develop Implementation Plan. It is important, for management purposes, to have a plan documenting the instructional system to be implemented. The course developer will identify resource constraints to the center resource manager and the Command Course Manager to advocate for the funding requirement.

2-7. Update Instructional Systems Development (ISD) Management Plan. Now that the design phase is complete, it is again likely the plans for managing the instructional system require updating to ensure they remain effective as a management tool. For further information refer to AFM 50-2, Chapter 5, Section G.

Chapter3

DEVELOP

3-1. Introduction. This chapter establishes AFMC guidelines and standards for course development.

3-2. Plan of Instruction. Plan of Instruction, AFMC Form 852 or computer equivalent, will be prepared in accordance with AFP 50-68, Volume IX or X, as applicable. Prepare a Plan of Instruction, Part II (Lesson Plan), Syllabus or Story Boards in accordance with AFM 50-68, Volumes V, VI, VII, IX or X as applicable. The instructor will personalize the Plan of Instruction Part II, Lesson Plan or Syllabus. Personalizing may be accomplished before validation by the initial instructor or before teaching the class by subsequent instructors.

3-3. Standards for Course Materials. Course Package: A course package will include the following printed materials:

a. Inventory Sheet.

b. Course Training Standard (CTS).

c. Course Chart (CC), AFMC Form 853 (completion instructions are at attachment 3).

d. Plan of Instruction Part I, Story Board, or Flow Chart, AFMC Form 852 or computer equivalent.

e. Plan of Instruction Part II, must include one of the following: Lesson Plan; Syllabus; Flow Chart; Storyboards.

f. Study Guide (SG), Workbook(s) (WB), Video, Interactive Courseware (ICW), Handouts (HO), other student materials and/or test(s) as applicable.

g. General Guidelines (WB/SG):

(1) Course Covers will include:

(a) Course Title

(b) Approval Date

(c) Course Number

h. Type document, i.e., Study Guide (SG), Handout (HO), Workbook (WB) Study Guide/Workbook (SG/WB) Overhead (OH), Programmed Text (PT) etc.

(1) Prepare a "Use of Publication page" for Study Guides and Workbooks according to the sample (Attachment 4)

(2) Table of Contents will follow "Use of Publication" page. If included in the workbook; figures, tables, illustrations, attachments or appendices; will be listed on the Table of Contents page.

(3) An Instruction page may be included following the Table of Contents page to describe course material or components. If used, prepare using the attached example. (Attachment 5)

(4) The first page of the Workbook and Study Guide will include: Module, Block, Chapter or Segment Title Centered, Introduction (on Left), Objective (on Left), and Information (on Left).(Attachment 6)

(5) Include a Glossary of Terms or Acronym Listing. It may be a part of the Study Guide, Work Book or Programmed Text or as a separate booklet.

(6) Number Pages, Figures, Illustrations and Tables, Appendices and Attachments in accordance with AFR 5-8.

(7) On the Job Training Materials developed by Human Resources Development must have an AFMC number.

i. Distance Learning: HQ AFMC/DPUS is the point of contact to support Distance Learning initiatives such as Interactive Courseware, {Computer Aided Instruction (CAI), Computer Based Instruction (CBI), Computer Based Training (CBT), Interactive Video Disk (IVD)}, Expert Systems, etc.

3-4. Validation:

a. Review: Affected Centers and HQ AFMC/DPU will review courses.

(1) Send one printed copy of the course package to each affected center and one printed copy or copy on disk to HQ AFMC/DPU.

(2) Send written reply of concurrence or comments to the Developer from affected centers with courtesy copy to HQ AFMC/DPU within 30 working days after receipt. HQ DPU will send written reply to Developer within 10 working days after the comments are due from the centers.

(3) Consider non receipt of reply by due date, concurrence.

b. Validation: Accomplish validation by a minimum of three individual tryouts or one small group tryout or one operational tryout. (AFP 50-68, Volume IX). At this time you will determine how often your command review will be. Hold the command review to reassess needs

and content by affected centers. Suggested cycle is three to five years.

c. Finalization: All course materials will be revised, as necessary, after validation and be considered final.

d. Release: All courses, whether local or for use in more than one center or command-wide courses, will be released by HQ AFMC/DPU.

e. Instructor Training for Specific Courses: Developing center may host instructor training for specific courses, or notify affected centers when the first operational class will be held and allow trainers to attend. Each center will include funding requirements in the training management plan to cover instructor training for specific courses.

Chapter 4

IMPLEMENTATION

4-1. Introduction. This chapter will discuss the course implementation process as well as reviews and evaluation of this process.

4-2. Course Implementation Process. The system functions provide the structure that supports, operates, and maintains the instructional system. For details and specifics on the following refer to AFM 50-2:

a. Management Functions.

b. Administrative Functions.

c. Delivery Functions: In addition to the coverage in AFM 50-2, be aware that all objectives must be met, any changes to course content or to the meaning of course objectives that change the course significantly must have a new course number assigned by the CCM.

d. Support Function: When preparing to present a course, be sure to refer back to previous funding and acquisition procedures ensuring long-lead-time, investment items have been identified and will be in place.

e. Course Disposal: If a course has not been used for a period of one year, the lead center will send a letter to all using agencies to see if they need the course. If none of the using agencies need the course, the lead center will transfer the course to the CCM for disposition.

f. Course Transfer: The CCM should determine the new lead center when transferring responsibility for a course. A request for reassignment should include a summary course package, including identifying needed materials and equipment. Upon approval, furnish all available course material and audit trail documentation to the receiving center. At that time, the CCM will notify all centers of the transfer. The current lead center, if necessary, would request reassignment consideration through their center's channels. Send this request to the respective CCM for submission to the receiving center Human Resources Development (HRD).

4-3. Reviews. There are three reviews; an annual review by the lead center, a command-wide review and a curriculum review.

a. The annual review is a review of a specific course using all previously received external and internal feedback, regulation changes, and any specific data or input the developer/reviewer(s) deem necessary. Provide copies of the revised course material to all affected centers, and the CCM.

b. The command-wide review is to reassess needs and content by all centers. This is a review with a suggested cycle of 3 to 5 years. The course developer will establish the cycle concurrent with course validation. Use the review process identified in paragraph 3-4, Validation, of this document.

c. The curriculum review is to ensure there are no gaps or overlaps in the courses within the discipline's curriculum. CCMs organize and call curriculum reviews for each discipline as needed. Since training needs and courses may be identified, assigned, and standardized at these reviews, it may be necessary for course developers/instructors , HQ Functional OPRs, Occupational Training Managers and Command Training Manager to be present.

4-4. Evaluation. It is now necessary to evaluate the implementation process. One method to evaluate is the Training Quality Report, AF Form 1284. This form may be used by the supervisor of a student to report deficiencies and weaknesses in the training. For further examples of evaluation refer to AFM 50-2, Chapter 7 and AFP 50-68.

Chapter 5

EVALUATION

5-1. Introduction. The ISD model iterates the need for evaluation of course development and course management. Evaluation is a dynamic ongoing quality assurance/quality improvement process utilized throughout each ISD phase. The evaluative process never fully ends until the course becomes obsolete. Among the purposes of evaluation are:

a. To provide developers, students, supervisors, and instructors with necessary performance feedback.

b. To provide qualitative measurement information to management. These evaluations are tools used by the course developer to ensure meeting of the course objectives.

5-2. Instructional Evaluation. It is important that course developers/instructors evaluate throughout each ISD phase to constantly review and improve the development process(es). During the Analysis Phase, evaluation will provide developers with information such as whether or not to change data (Ref AFM 50-2) Evaluating during the Design Phase verifies the course processes are correct. It also provides the developer(s) with an assessment of the appropriateness of the selected products to meet the stated objectives (Ref AFM 50-2). In the Development Phase, evaluation verifies whether course materials are accurate, complete and compatible with products developed during earlier phases. For example, do the objectives, tests, lesson plans, training standards and student materials agree? Then, accomplish validation through cycles of development, tryouts, and revisions as necessary to improve the course material. Hold internal reviews, individual tryouts, small group tryouts (formative evaluation) and operational tryouts (summative evaluation) until instruction is effective and the materials are finalized. Although the Implementation Phase insinuates a "finished product", the evaluative process continues. The continuous evaluation reflects the effectiveness and efficiency of the training (assessing how well students are meeting job performance requirements). Consolidate the results of internal reviews (in-class instruction, materials, equipment utilized, etc.) and external reviews (on-the-job performance) into a definitive summative evaluation.

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DEVELOPMENT ROLES AND RESPONSIBILITIES

1. Developer. The course developer will ensure the instructional systems development methodology and the AFMCM 50-14 guidelines are followed when assigned responsibility for the development of an AFMC course.

2. Command Course Manager. The Command Course Manager (CCM) is responsible for the management of course development, delivery, maintenance and disposal within AFMC. The CCM is responsible for the following course development duties:

a. Ensure command-wide course development assignments (initial/transfer).

b. Assign course numbers.

c. Advocate for AFMC course resources.

d. Maintain library of existing AFMC courses.

e. Maintain AFMC course catalog.

f. Ensure AFMC courses are developed using the ISD methodology.

g. Ensure HQ Functional OPR review of AFMC command-wide courses.

h. Initiate curriculum reviews.

i. Act as focal point for all AFMC course issues.

j. Maintain the AFMCM 50-14.

3. Instructor. Upon completion of course development and before instruction begins, the instructor will personalize the lesson plan or syllabus.

4. HQ Functional OPR. Review courses within their area of expertise to ensure technical accuracy.

GLOSSARY OF TERMS

1. Acronyms:

CAI - Computer Aided Instruction
CBI - Computer Based Instruction
CBT - Computer Based Training
CC - Course Chart
CCM - Command Course Manager
CTS - Course Training Standard
HO - Handouts
ICW - Interactive Courseware
IVD - Interactive Video Disc
KSA - Knowledge, Skills and Abilities
MTL - Master Training List
OH - Overhead
OJT - On-the-Job Training
POI - Plan of Instruction
PT - Programmed Text
SG - Study Guide
TAW - Task Analysis Worksheet
WB - Work Book

2. Definitions:

Ability - Physical or mental power to perform a job performance requirement.

Affected Center - Any center where the task is performed or the knowledge is needed. For courses developed to meet template generated requirements, the balloting centers are considered affected.

Approval Date - The date the course is released by HQ AFMC/DPU.

Audit Trail Documentation - All materials obtained/developed for use in the course development process. (i.e., task analysis worksheet, master task list, etc.)

Block - Major portion of a course.

Computer Aided Instruction - The use of computers to assist in the delivery of instruction. A variety of interactive instructional modes are used including tutorial, drill, and practice, gaming, simulations, or combinations of modes. CAI is an integral part of computer-based instruction and/or computer-based training.

Computer Based Instruction - This term refers to the use of computers to aid in the delivery and management of instruction. Therefore, CAI (the delivery of instruction) is an element of a CBT.

Computer Based Training - See Computer Based Instruction.

Course Chart - A course control document that states the course identity, length, and security classification, and summarizes the subject matter covered.

Course Number - The fifteen digit identifier assigned by HQ AFMC/DPU.

Course Training Standard - Document that identifies the most common tasks/knowledge required and the level to which they need to be taught.

Curriculum - A set of courses constituting an area of specialization. All training conducted within a discipline, outlined into specific topics, along with detailed training objectives, to include behavior, conditions, and standards.

Disposition - The status of a course. (e.g., maintain, shelve, dispose).

Discipline - A grouping of similar occupations.

Duty - A large segment of the work done by an individual. Major divisions of work in a job.

Expert System - A computer program that uses knowledge and inference procedures to solve problems that are difficult enough to require significant human expertise for their solution.

Flowchart - A programming guide that is a graphic representation of all branching and data processing required for the interactive courseware. A diagram that depicts the events or actions and their sequence in the program. A map of interactive logic, representing the possible paths a user can take in the courseware, and comprising standard symbols for program segments, decision points, clues, responses, and logic flow.

Hand Outs - Any material provided to the student other than the study guide or workbook.

Headquarters Functional OPR - The HQ AFMC functional owner of the course content.

Individual Tryout - Testing the course on individual students to determine the effectiveness of the materials as they are developed.

Interactive Courseware - Computer-controlled training specifically designed to allow the student to interact with the learning environment through various input devices such as keyboards and light pens. The student's decisions and inputs to the computer determine the level, order, pace of instructional delivery, and forms of visual or audio outputs.

Interactive Video Disc (IVD) - A form of interactive courseware instruction that specifically makes use of videodisc technology. Video and audio signals are pressed onto the laser videodisc. Programming codes may or may not be pressed on the disc depending on the IVD level. As a result, motion sequence, still frame shots, computer-generated graphics, and/or audio may be displayed and heard through a monitor under computer and use control.

Inventory Sheet - A list of materials contained in a course package.

Knowledge - The use of the mental processes that enable a person to recall facts, identify concepts, apply rules or principles, solve problems, think creatively, etc. A person manifests knowledge through performing associated overt activities.

Lesson Plan - An approved plan for instruction that provides specific definition and direction to the instructor on learning objectives, equipment, instructional media material requirements, and conduct of training. Lesson plans are the principal component of course materials in that they sequence the presentation of learning experiences and program the use of supporting instructional material.

Long-Lead-Time Requirements - Resources that require acquisition/development beyond the common supply process. (i.e., Simulator; building; computers, etc.)

Module - Major portion of a course.

Objective - Behavior that is to be exhibited, the conditions under which the behavior will be accomplished, and the minimum standard of acceptable behavior.

Occupational Template - A comprehensive training management tool used to identify an occupation's training needs. It is composed of job performance requirements, associated training sources and other relevant data.

On-the-Job Training - Also known as Qualification Training. Hands-on task performance training designed to qualify an individual for a specific duty. It is designed to provide the performance skills required to do the job.

Operational Class - Any class conducted after the release of the course.

Operational Tryout - The field test of instruction to determine if the components of an instructional system that have been developed or revised actually work under operational conditions.

Organic - Any AFMC owned course.

Plan of Instruction - A course control document designed primarily for course planning, organization, and operation. Generally, for every block/module/segment of instruction within the course, criterion objective, duration of instruction, and support materials/guidance factors are listed.

Programmed Text - Designed for self paced courses or portions thereof. In programmed instruction the student receives information and then is required to apply it in answering questions or solving problems. After responding, the student is informed as to the accuracy of the response.

Release - The HQ AFMC/DPU signature that signifies the finalization of the course development process.

Segment - Major portion of a course.

Skill - Skill involves physical or manipulative activities. They often require knowledge for their execution. All skills are actions having specific requirements for speed, accuracy, or coordination.

Small Group Tryout - A test of an average group of students to helps determine if the instruction and materials will be effective under operational conditions.

Storyboard - A presentation of a lesson display, text, graphics, IVD visual and audio, and programming for each lesson. It generally consists of six major components: storyboard cover sheet, storyboard display references, text displays, graphics displays, IVD visual displays, and IVD audio displays.

Study Guide - Designed to support the learning objectives in stand up instruction. They may be used for reading assignments during the course and more important, be retained by the student for a course reference.

Subject Matter Expert - A person with extensive knowledge about a particular content area.

Syllabus - See Plan of Instruction.

Task - A unit of work activity or operation that forms a significant part of a duty. It constitutes a logical and necessary step in the performance, and usually have a beginning and end.

Test - The process of objectively determining a student's achievement in relation to a set standards that are based on criterion objectives.

Validation - The process of developmental testing, field testing, and revision of the instruction to be certain the instructional intent is achieved. The instructional system is tested on the basis of the objective(s) prepared for each block/module/segment. Validation allows instructional designers to guarantee specific results.

Work Book - Are designed to supplement stand-up instruction or programmed instruction. They are constructed in a manner requiring written responses based on formal classroom instruction or a specific reading assignment. By design work books should not contain new information or detailed procedures but should test those items covered in the programmed text and study guides. Case studies, when used, will be included in the work book.

COURSE CHART COMPLETION INSTRUCTIONS (AFMC FORM 853)

1. Course Number: The fifteen digit course number assigned by HQ AFMC/DPU.

2. Date: Course chart publication date entered by developing center.

3. AFMC Approval Date: Date the course is released by HQ AFMC/DPU.

4. Course Title: The course title.

5. Course Length: The total number of hours required to complete the course.

6. Target Population: The primary occupation(s) affected by the course.

7. Applicable CTS Number and Date: The number and date on the most recent course training standard.

8. Location(s) of Training: The center(s) where the training may take place.

9. Supersedes Course Number and Date: The number and date of the superseded course, if applicable.

10. Security Classification: For unclassified courses, the word "UNCLASSIFIED" will be used. For courses where any portion of the course is classified, the classification will be identified (i.e., SECRET).

11. Course Description:

a. A brief summary of the course content.

b. Course OPR (Name, Organization, Phone).

c. Prerequisites required for the course.

12. Segment Number: Indicate the segment number with corresponding title and time allocation for each.

SAMPLE - "USE OF PUBLICATION PAGE"

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE MATERIAL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE OHIO 45433 - 5001

Course Number
Date

Training

COURSE TITLE

This (study guide or work book or other document) is designed for training use only. This study guide is updated as necessary for training purposes; however, this document should not be used as an authoritative on-the-job reference. Use current operating procedures and other directives on the job.

_____(Approximately 10 underscores)
OPR: Center/Organizational Symbol
Supersedes: (SG/WB # & Date)

SAMPLE - "INSTRUCTION PAGE"

INSTRUCTIONS

This document has been prepared to supplement the instruction you will receive in the classroom. It can be a valuable asset if you use it to prepare for the following class or review and add to the information presented in class. You can even take notes in it, although this can be difficult because of the limited space provided. Don't expect this document to contain everything your instructor will cover in class. It isn't a substitute for attention in class or for good notes. Use it for its designed purpose and it will serve you well. This package consists of one Study Guide Book for each of the eight course segments.

SAMPLE - FIRST PAGE OF A STUDY GUIDE OR A WORK BOOK

CHAPTER 1 - COURSE OVERVIEW

INTRODUCTION

In previous courses you have learned the fundamental principles of jet propulsion and have mastered the major parts of a turbo jet engine. If your job were limited to working on the core engine, you'd be ready to start full-time production right now. As important as the core engine is , it can't operate without the associated systems which feed, lubricate, and control it. Knowledge of these associated systems will enable you to diagnose problems more effectively, and you'll find much job satisfaction when you know how the parts you overhaul contribute to the engine's performance.

OBJECTIVES

a. Given a list of statistics and Table of Engine Categories, match statistics with the correct engine category with a minimum of 70 percent accuracy.

b. Given statements about bearings, frames, and engine section functions, select the component to which each statement pertains with a minimum of 70 percent accuracy.

INFORMATION

This course will familiarize you with the major associated jet engine systems. Specifically, we will examine the structure, functions, and repair of the fuel system; oils and the oil system; the starter and ignition systems; the anti-icing and bleed air systems; the thrust reversers; and the constant speed drive system. The spec. etc.

REFERENCES

AFR 5-8 - Preparing Air Force Publications

AFM 50-2 - Instructional Systems Development

AFR 50-5 - USAF Formal Schools

AFM 50-62 - Handbook for Air Force Instructors

AFP 50-68, Volume I - ISD Leadership Summary for Commanders and Managers (pending)

AFP 50-68, Volume II - ISD Automated Tools/What Works (pending)

AFP 50-68, Volume III - Information for Designs of Instructional Systems - Application to Acquisition (pending)

AFP 50-68, Volume IV - Manager's Guide to Training Technologies

AFP 50-68, Volume V - Information for Designers of Instructional System Interactive Courseware (ICW) Decision Guide

AFP 50-68, Volume VI - Information for Designers of Instructional System Interactive Courseware (ICW) Developer's Guide

AFP 50-68, Volume VII - Interactive Courseware (ICW) Selection Guide (pending)

AFP 50-68, Volume VIII - Information for Designers of Instructional Systems - Application to Aircrew Training (pending)

AFP 50-68, Volume IX - Information for Designers of Instructional Systems - Application to Technical Training (pending)

AFP 50-68, Volume X - Information for Designers of Instructional Systems - Application to Education (pending)

AFP 50-68, Volume XI - Information for Designers of Instructional Systems - Application to On-the-Job Training (pending)

AFMCR 50-4 - Human Resources Development

AFMCP 50-5 - AFMC Course Catalog

AFMCP 50-15 - Human Resources Development Process Guide (pending)

*U.S. G.P.O.:1993-341-774:76438